

IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A method for monitoring data resources of a data processing network on behalf of new consumer ~~entities within of monitoring data to~~ the data processing network, said method comprising ~~the steps of:~~

determining monitoring requirements of ~~[[a]]~~ said new consumer ~~entity~~, wherein said monitoring requirements include:

a list of data resources monitored for said new consumer;

metrics of said monitoring data for said new consumer;

a data format for monitoring data provided to said new consumer;

a time interval between periods of sending said monitoring data to said new consumer; and

actions taken during failure of said data resource;

comparing the monitoring requirements of the new consumer ~~entity~~ with monitoring capabilities of a plurality of monitoring entities to identify at least one monitoring entity ~~having~~ including monitoring capabilities matching the monitoring requirements of the new consumer ~~entity~~, wherein:

said monitoring entities ~~are adapted to~~ monitor said data resources of said data processing network; and

said monitoring capabilities including one or more of:

a current set of data resources being monitored by each of said plurality of monitoring entities;

a set of data resources which each of said plurality of monitoring entities is capable of monitoring;

monitoring metrics which each of said plurality of monitoring entities is currently monitoring;

monitoring metrics which each of said plurality of monitoring entities is capable of currently monitoring;

a current monitoring period; and

data format capabilities of each of said plurality of monitoring entities;

and

in response to identifying at least one monitoring entity having of said plurality of monitoring entities including monitoring capabilities matching the monitoring requirements of the new consumer entity, selecting at least one of the identified monitoring entities and binding the new consumer entity to the selected at least one of the identified monitoring entity entities,

wherein binding said new consumer to said selected at least one of the identified monitoring entities comprises establishing a connection between said new consumer and said selected at least one of the identified monitoring entities, sending a description of the new consumer's monitoring requirements to said selected at least one of the identified monitoring entities, and configuring said selected at least one of the monitoring entities to perform said new consumer's monitoring requirements.

2-5. (Cancelled).

6. (Currently Amended) The method according to claim 1, all the limitations of which are incorporated herein by reference, wherein the ~~step of~~ comparing requirements with capabilities comprises comparing a required monitoring granularity with monitoring granularity capabilities of each of the plurality of monitoring entities.

7. (Cancelled).

8. (Currently Amended) The method according to claim 1, all the limitations of which are incorporated herein by reference, further comprising ~~the steps of:~~

the new consumer entity sending a description of its monitoring requirements to a repository;

the plurality of monitoring entities sending descriptions of their respective monitoring capabilities to the repository; and
storing the descriptions of requirements and capabilities in the repository;
wherein the comparing ~~step~~ comprises comparing the descriptions of requirements and capabilities stored in the repository.

9. (Currently Amended) The method according to claim 8, all the limitations of which are incorporated herein by reference, further comprising ~~the step of~~ creating a binding document describing the monitoring performed for the new consumer ~~entity~~ by the selected at least one of ~~the~~ monitoring ~~entity~~ entities, and sending the binding document to the repository.

10. (Currently Amended) The method according to claim 8, all the limitations of which are incorporated herein by reference, wherein the descriptions of monitoring entities' capabilities comprise a list of the metrics currently being monitored for each of ~~a set~~ said list of monitored data resources.

11. (Currently Amended) The method according to claim 10, all the limitations of which are incorporated herein by reference, wherein the descriptions of said monitoring entities' capabilities comprise currently active monitoring parameters for each monitoring metric.

12. (Currently Amended) The method according to claim 10, all the limitations of which are incorporated herein by reference, wherein the descriptions of said monitoring entities' capabilities comprise the ~~output~~ data format for each monitoring metric.

13. (Currently Amended) The method according to claim 1, all the limitations of which are incorporated herein by reference, further comprising ~~the step of~~:

in response to a failure to identify at least one of ~~the~~ monitoring ~~entity~~ entities having monitoring capabilities matching all monitoring requirements of the new consumer ~~entity~~, initiating a negotiation between the new consumer ~~entity~~ and [[a]] said plurality of monitoring

entities to select a best match, relative to other matches based on quality of service parameters, between the monitoring requirements of the new consumer entity and the monitoring capabilities of the plurality of monitoring entities.

14. (Currently Amended) The method according to claim 1, all the limitations of which are incorporated herein by reference, further comprising ~~the step of:~~

using a common sub-expression finder module to identify a monitoring entity having at least one sub-expression in common with the new consumer entity, and selecting the monitoring entity having the at least one common sub-expression.

15. (Currently Amended) A method for monitoring data resources of a data processing network on behalf of new consumer ~~entities within of monitoring data to the data processing~~ network, said method comprising ~~the steps of:~~

determining monitoring requirements of [[a]] said new consumer entity, wherein said monitoring requirements include:

a list of data resources monitored for said new consumer;

metrics of said monitoring data for said new consumer;

a data format for monitoring data provided to said new consumer;

a time interval between periods of sending said monitoring data to said new consumer; and

actions taken during failure of said data resource;

comparing the monitoring requirements of the new consumer entity with monitoring capabilities of a plurality of monitoring entities to identify at least one monitoring entity having including monitoring capabilities matching the monitoring requirements of the new consumer entity, wherein:

said monitoring entities ~~are adapted to~~ monitor said data resources of said data processing network; and

said monitoring capabilities including one or more of:

a current set of data resources being monitored by each of said plurality of monitoring entities;

a set of data resources which each of said plurality of monitoring entities is capable of monitoring;

monitoring metrics which each of said plurality of monitoring entities is currently monitoring;

monitoring metrics which each of said plurality of monitoring entities is capable of currently monitoring;

a current monitoring period; and

data format capabilities of each of said plurality of monitoring entities;

and

in response to identifying at least one monitoring entity ~~having~~ of said plurality of monitoring entities including monitoring capabilities matching the monitoring requirements of the new consumer ~~entity~~, selecting at least one of the identified monitoring entities and binding the new consumer ~~entity~~ to the selected at least one of the identified monitoring ~~entity~~ entities,

wherein binding said new consumer to said selected at least one of the identified monitoring entities comprises establishing a connection between said new consumer and said selected at least one of the identified monitoring entities, sending a description of the new consumer's monitoring requirements to said selected at least one of the identified monitoring entities, and configuring said selected at least one of the monitoring entities to perform said new consumer's monitoring requirements; and

in response to a failure to identify at least one of the monitoring entities having monitoring capabilities matching all monitoring requirements of the new consumer, initiating a negotiation between the new consumer ~~entity~~ and a plurality of monitoring entities to select a best match, relative to other matches based on quality of service parameters, between the monitoring requirements of the new consumer ~~entity~~ and the monitoring capabilities of the plurality of monitoring entities.

16-25. (Cancelled).

26. (Currently Amended) A data processing system for monitoring resources of a data processing network, comprising:

a data storage unit for storing;

monitoring requirements of a new consumer, said monitoring requirements including:

a list of data resources monitored for said new consumer;

metrics of said monitoring data for said new consumer;

a data format for monitoring data provided to said new consumer;

a time interval between periods of sending said monitoring data to said new consumer; and

actions taken during failure of said data resource; and

monitoring capabilities of each of a set plurality of monitoring entities, said monitoring capabilities including one or more of:

a current set of data resources being monitored by each of said plurality of monitoring entities;

a set of data resources which each of said plurality of monitoring entities is capable of monitoring;

monitoring metrics which each of said plurality of monitoring entities is currently monitoring;

monitoring metrics which each of said plurality of monitoring entities is capable of currently monitoring;

a current monitoring period; and

data format capabilities of each of said plurality of monitoring entities; and

a monitoring manager, responsive to monitoring requirements of a ~~data~~ said new consumer entity, for comparing the monitoring requirements of the ~~data new~~ consumer entity with monitoring capabilities of said plurality of monitoring entities stored in the data storage unit to identify at least one monitoring entity ~~having~~ including monitoring capabilities matching the monitoring requirements of the ~~data new~~ consumer entity, wherein said monitoring entities are

~~adapted to monitor said data resources of said data processing network, selecting at least one of the identified monitoring entities, and binding the selected monitoring entities to the data consumer entity; and~~

in response to identifying at least one monitoring entity of said plurality of monitoring entities including monitoring capabilities matching the monitoring requirements of the new consumer, selecting at least one of the identified monitoring entities and binding the new consumer to the selected at least one of the identified monitoring entities,

wherein binding said new consumer to said selected at least one of the identified monitoring entities comprises establishing a connection between said new consumer and said selected at least one of the identified monitoring entities, sending a description of the new consumer's monitoring requirements to said selected at least one of the identified monitoring entities, and configuring said selected at least one of the monitoring entities to perform said new consumer's monitoring requirements.

27. (Currently Amended) The data processing system according to claim 26, all the limitations of which are incorporated herein by reference, wherein the monitoring manager comprises:

a component for handling registration and de-registration of ~~consumer entities~~ new and existing consumers, respectively ~~and monitoring entities with a monitoring subsystem;~~

a selector for selecting at least one monitoring entity of said plurality of monitoring entities for ~~[[a]] said new consumer entity;~~ and

a connection manager for establishing a connection between the new consumer entity and the selected at least one monitoring entity.

28. (Currently Amended) The data processing system according to claim 26, all the limitations of which are incorporated herein by reference, wherein the monitoring manager further comprises a resource optimizer for determining ~~a set of one or more~~ at least one of said plurality of monitoring entities capable of generating required said monitoring data metrics from data measured for a data resource, according to said monitoring requirements.

29. (Currently Amended) A distributed data processing system comprising:

- a set of data processing apparatuses each comprising at least one resource;
- a set of data processing apparatuses each comprising at least one new consumer entity requiring monitoring data for a resource;
- at least one data storage unit for storing a repository of monitoring requirements of the new consumer entities and existing consumers, and for storing monitoring capabilities of each of a set plurality of monitoring entities; and
- a monitoring manager, responsive to the monitoring requirements of ~~a first data consumer entity, for comparing the monitoring requirements of the first data consumer entity with the stored monitoring capabilities of monitoring entities to identify at least one monitoring entity having monitoring capabilities matching the monitoring requirements of the first data consumer entity, wherein said monitoring entities are adapted to monitor said resources of said data processing network, for selecting at least one of the identified monitoring entities, and for binding the selected monitoring entities to the first data consumer entity~~ said new consumer, for comparing the monitoring requirements of the new consumer with monitoring capabilities of said plurality of monitoring entities stored in the data storage unit to identify at least one monitoring entity including monitoring capabilities matching the monitoring requirements of the new consumer, wherein said monitoring entities monitor said data resources of said data processing network; and
- in response to identifying at least one monitoring entity of said plurality of monitoring entities including monitoring capabilities matching the monitoring requirements of the new consumer, selecting at least one of the identified monitoring entities and binding the new consumer to the selected at least one of the identified monitoring entities,
- wherein binding said new consumer to said selected at least one of the identified monitoring entities comprises establishing a connection between said new consumer and said selected at least one of the identified monitoring entities, sending a description of the new consumer's monitoring requirements to said selected at least one of the identified monitoring entities, and configuring said selected at least one of the monitoring entities to perform said new consumer's monitoring requirements.

30-31. (Cancelled).

32. (Currently Amended) A computer program product, comprising program code recorded on a recording medium, for managing monitoring of resources within a data processing network on behalf of one or more data consumer entities within the network, the program code device readable by machine, tangibly embodying a program of instructions executable by said machine to perform a method for monitoring data resources of a data processing network on behalf of new consumer of monitoring data to the data processing network, said method comprising:

a monitoring manager, responsive to monitoring requirements of a data consumer entity, for comparing the monitoring requirements of the data consumer entity with stored monitoring capabilities of monitoring entities to identify at least one monitoring entity having monitoring capabilities matching the monitoring requirements of the data consumer entity, wherein said monitoring entities are adapted to monitor said resources of said data processing network, for selecting at least one of the identified monitoring entities, and for binding the selected monitoring entities to the data consumer entity

determining monitoring requirements of said new consumer, wherein said monitoring requirements include:

a list of data resources monitored for said new consumer;

metrics of said monitoring data for said new consumer;

a data format for monitoring data provided to said new consumer;

a time interval between periods of sending said monitoring data to said new consumer; and

actions taken during failure of said data resource;

comparing the monitoring requirements of the new consumer with monitoring capabilities of a plurality of monitoring entities to identify at least one monitoring entity including monitoring capabilities matching the monitoring requirements of the new consumer, wherein:

said monitoring entities monitor said data resources of said data processing network; and

said monitoring capabilities including one or more of:
a current set of data resources being monitored by each of said plurality of
monitoring entities;
a set of data resources which each of said plurality of monitoring entities
is capable of monitoring;
monitoring metrics which each of said plurality of monitoring entities is
currently monitoring;
monitoring metrics which each of said plurality of monitoring entities is
capable of currently monitoring;
a current monitoring period; and
data format capabilities of each of said plurality of monitoring entities;
and
in response to identifying at least one monitoring entity of said plurality of monitoring
entities including monitoring capabilities matching the monitoring requirements of the new
consumer, selecting at least one of the identified monitoring entities and binding the new
consumer to the selected at least one of the identified monitoring entities,
wherein binding said new consumer to said selected at least one of the identified
monitoring entities comprises establishing a connection between said new consumer and said
selected at least one of the identified monitoring entities, sending a description of the new
consumer's monitoring requirements to said selected at least one of the identified monitoring
entities, and configuring said selected at least one of the monitoring entities to perform said new
consumer's monitoring requirements.

33. (Cancelled).